

What Is Claimed Is:

1. A gateway unit for connecting subnets, in particular in vehicles, the gateway unit connecting at least two subsystems, wherein the gateway unit is made of at least one modular software gateway, which routes messages between precisely two subnets.
2. The gateway unit as recited in Claim 1, wherein at least three subnets are connected to the gateway unit, modular software gateways being used, each modular software gateway routing messages between precisely two subsystems.
3. The gateway unit as recited in one of the preceding claims, wherein bus-specific receiving objects which relay the incoming messages to selected software gateways are also provided for each subnet.
4. The gateway unit as recited in Claim 3, wherein the receiving objects include routing tables in which the treatment of incoming messages is configured.
5. The gateway unit as recited in one of the preceding claims, wherein bus-specific transmitting objects which monitor the access to the particular bus are also provided for each subnet.
6. The gateway unit as recited in one of the preceding claims, wherein the modular software gateway buffers incoming messages and performs protocol-specific adaptations.
7. The gateway unit as recited in one of the preceding claims, wherein, when the gateway is integrated in a control unit having an application system, at least one modular logical gateway can be provided in one layer of the communication system, the logical gateway connecting exactly two subsystems.